

## *Skill Development*

## *Player Development*

Taken from the NSCAA Soccer Journal May-June 2010 --  
an article entitled: ***Cracking the Code*** - A review of Daniel Coyle's "The Talent Code"  
this review prepared by Terry Michler

All human skills are created by linked nerve fibers in your brain that send a signal to your muscles. Myelin plays an important role by serving as an insulator for those nerve fibers. The more insulation, or more myelin, that is wrapped around those nerve fibers, the stronger and faster the signal becomes as fewer of these electrical impulses leak out.

In soccer, with each repetition, myelin responds by wrapping layers around the nerve fiber. With each additional layer of myelin added, the player increases the ability to process the soccer specific skill required. Soccer is a flexible-circuit activity because the athlete must comprehend a fluid set of conditions and apply skill to meet the challenges. Myelin is also a key factor in regulating the speed of neural circuits so they combine at the optimal time.

The age old argument of nature vs nurture is turned on its head when explaining talent development. Myelin is universal in all human beings and the development of myelin follows one consistent rule: it doesn't care who you are, it only cares what you do! Myelin is built through action or repetition. It doesn't respond to thoughts, ideas or visualizations. Imitating a skill set for thousands of hours of practice could make you a better soccer player. Watching endless videos, without action, will not!

Even in the hottest of the hotbeds (Brazil) three key ingredients were consistently on display: **deep practice, ignition and master coaching**. All of these must be present to facilitate maximum myelin growth and subsequent skill development.

**Deep practice** involves training at the edge of your capabilities. Training in this zone leads to player making numerous mistakes: they are asked to perform certain demands of the game with which they may not yet be comfortable. As deep practice is occurring, the athlete is wrapping even more myelin around each circuit and increasing skill. Thus, operating outside one's comfort zone leads to making mistakes that ultimately makes the individual better. Simply put, mistakes lead to skill.

Deep practice is facilitated by futsal – an environment in which risk-taking and experimentation are encouraged. Futsal leads to player success because it compresses soccer’s essential skills into a small box; it places the players inside the deep practice zone, making and correcting errors, constantly generating solutions to vivid problems. Futsal increases the velocity of deep practice and myelin creation because everyone gets to experiment with the ball so much more frequently than players do in an 11 a side game. **Deep practice can increase the speed of skill acquisition 10 times faster than regular practice that simply incorporates drills.**

The 10,000 hour rule – to become truly great at any skill you need at least 10,000 hours of deep or deliberative practice – constantly experimenting, correcting mistakes and building myelin. The practice of deep practice is most important for kids ages 6 to 12. Their spatial awareness and ability to understand tactical concepts is still developing, but they have an almost unlimited capacity to acquire and develop new motor skills. In general, one’s ability to build myelin slows tremendously with age. This is why repetition at an early age **through small-sided games** is so critical to youth development.

It’s not just repetitions that make the difference, it’s when you spend it in the sweet spot at the edge of your capabilities (comfort zone), attentively building and honing circuits. Training sessions should focus more on dynamic games, as opposed to drills.

Myelin is unique in that it does not unwrap, it only wraps. Myelin is the reason that bad habits are difficult to break. At the younger ages, all energy should be focused on proper technical training, or myelin building, not playing for results.

The second key is **ignition**, or the motivational fuel that generates the energy, passion and commitment to deep practice. **Master coaches** ignite or inspire passion and commitment in their athletes. In soccer, the game is the best teacher. To stop the game (activity) in order to highlight some technical detail or give praise would be to interrupt the flow of the attentive firing, failing and learning that is at the heart of flexible circuit deep practice. Look for natural stoppages to make the brief, but ‘brilliant’ point(s). The ‘freeze, explain, replay’ method is now being replaced with waiting until natural stoppages, not abrupt stops.

A **master coach** is always tinkering and trying to figure out the best way to ignite their players and get them to train on the edge of their abilities. The verbal cues given by the coach should be targeted and highly specific, also brief. The master coach will be quiet, observe and listen more than they will talk.

Coaches should create an active learning environment where the players are actively engaged and the coach leads through a ‘guided discovery’ approach. Research tells us that kids retain only 18% of concepts learned passively, but 68 % of concepts learned actively. Training should be player-centered, not coach-centered.

Ignite the passion in your players to excel, provide the proper environment, engage the players in deep practice, and step in only at the appropriate time(s) to make necessary corrections. Remember, the deep practice needs to be at the edge of the player's comfort zone and maintained through repetitions in game – related situations. Deep practice can increase the speed of skill acquisition 10 times faster than regular practice that simply incorporates static drills. The concept of deep practice is most important for kids 6 to 12, as the ability to build myelin slows tremendously with age. Repetition through small-sided games at an early age is so critical to youth development.

